IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Teck Kheng Lee

Serial No.: Not Yet Assigned

Filed: April 22, 2004

For: METHODS FOR ASSEMBLY AND

PACKAGING OF FLIP CHIP

CONFIGURED DICE WITH INTERPOSER

Confirmation No.: Unknown

Examiner: Unknown

Group Art Unit: Unknown

Attorney Docket No.: 2269-4974.1US

(00-0693.01/US)

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Person making Deposit: Christopher Haughton

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The present application is a divisional of application Serial No. 10/150,901, filed May 17, 2002, pending, which is related to U.S. Patent Application Serial No. 09/944,465 filed August 30, 2001 and entitled MICROELECTRONIC DEVICES AND METHODS OF MANUFACTURE, and to the following U.S. Patent Applications also filed May 17, 2002: Serial No. 10/150,893, entitled INTERPOSER CONFIGURED TO REDUCE THE PROFILES OF SEMICONDUCTOR DEVICE ASSEMBLIES AND PACKAGES INCLUDING THE SAME AND METHODS; Serial No. 10/150,892, entitled METHOD AND APPARATUS FOR FLIP-CHIP PACKAGING PROVIDING TESTING CAPABILITY; Serial No. 10/150,516, entitled

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SEMICONDUCTOR DIE PACKAGES WITH RECESSED INTERCONNECTING STRUCTURES AND METHODS FOR ASSEMBLING THE SAME; Serial No. 10/150,653, entitled FLIP CHIP PACKAGING USING RECESSED INTERPOSER TERMINALS; and Serial No. 10/150,902, entitled METHOD AND APPARATUS FOR DIELECTRIC FILLING OF FLIP CHIP ON INTERPOSER ASSEMBLY.

Pursuant to M.P.E.P. 2001.06(b), the Examiner is respectfully requested to consider the information of record in the prior applications, and to confirm in the first Office Action on the merits that such art has in fact been reviewed. A PTO-1449 form listing all of the information of record in the prior applications is enclosed herewith.

This Information Disclosure Statement is filed within three (3) months of the filing date of the above-identified application, and no certification pursuant to 37 C.F.R. § 1.97(c) or a fee pursuant to 37 C.F.R. 1.17(p) is required.

Respectfully submitted,

Trent N. Butcher, P.E.

mut BIR

Registration No. 51,518

Attorney for Applicant(s)

TRASKBRITT

P.O. Box 2550

Salt Lake City, Utah 84110-2550

Telephone: 801-532-1922

Date: April 22, 2004

TNB/ps:ljb

Enclosures: Form PTO-1449

Document in ProLaw

Sheet 1 of 9 Docket Number (Optional) **Application Number** Form PTO-1449 2269-4974.1US Not Yet Assigned (00-0693.01/US) INFORMATION DISCLOSURE CITATION IN AN APPLICATION Applicant Teck Kheng Lee (Use several sheets if necessary) Filing Date April 22, 2004 Group Art Unit Unknown **U.S. PATENT DOCUMENTS** EXAMINER DOCUMENT FILING DATE DATE CLASS SUBCLASS NAME IF APPROPRIATE INITIAL NUMBER 4,807,021 02/1989 Okumura 5,347,159 09/1994 Khandros et al. 5,366,794 11/1994 Nakao 5.385,869 01/1995 Liu et al. 5,386,341 01/1995 Olson et al. 5,397,921 03/1995 Karnezos 5,409,865 04/1995 Karnezos 5,422,205 06/1995 Inoue et al. 5,438,477 08/1995 Pasch Paurus et al. 5,448,511 09/1995 5,504,277 04/1996 Danner FOREIGN PATENT DOCUMENTS Translation DOCUMENT NUMBER DATE CLASS SUBCLASS APPLICANT YES WO 99/65282 12/1999 Eide 09/1999 JP 2002-028702/04 Katsumasa JP 2000-183082 06/2000 Hitachi Ltd. OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) U. S. Patent Application entitled MICROELECTRONIC DEVICES AND METHODS OF MANUFACTURE, filed August 30, 2001, Serial No. 09/944,465. ISAAK, H. et al., "Development of Flex Stackable Carriers" IEEE Electronic Components and Technology Conference, 2000 Proceedings 50th, 5/21/2000-5/24/2000, Las Vegas. NV. USA, pp. 378-84, IEEE Catalog No: 00CH37070. Copy of Australian Patent Office, Search Report, 30 May 2003, 4 pages. DATE CONSIDERED **EXAMINER**

Docket Number (Optional) **Application Number** Form PTO-1449 2269-4974.1US **Not Yet Assigned** INFORMATION DISCLOSURE CITATION (00-0693.01/US) IN AN APPLICATION Applicant Teck Kheng Lee (Use several sheets if necessary) Group Art Unit Unknown Filing Date April 22, 2004 **U.S. PATENT DOCUMENTS** FILING DATE
IF APPROPRIATE EXAMINER DOCUMENT DATE NAME CLASS SUBCLASS INITIAL 5,598,033 01/1997 Behlen et al. 5,646,446 07/1997 Nicewarner, Jr. et al. 5,663,530 09/1997 Schueller et al. 5,668,405 09/1997 Yamashita 5,674,785 10/1997 Akram et al. 5,697,148 12/1997 Lance, Jr. et al. 01/1998 5,710,071 Beddingfield et al. 5,719,449 02/1998 **Strauss** 5,721,151 02/1998 Padmanabhan et al. 5,739,585 04/1998 Akram et al. 05/1998 5,747,982 Dromgoole et al. **FOREIGN PATENT DOCUMENTS** Translation DOCUMENT COUNTRY CLASS SUBCLASS DATE NUMBER YES NO **OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.) DATE CONSIDERED **EXAMINER** EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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INFORMATION DISCLOSURE CITATION IN AN APPLICATION

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Docket Number (Optional) 2269-4974.1US (00-0693.01/US) Application Number Not Yet Assigned

Applicant Teck Kheng Lee

EXAMINER INITIAL			PATENT DOCUMENTS				
	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIAT	
	5,752,182	05/1998	Nakatsuka et al.				
	5,758,413	06/1998	Chong et al.				
	5,798,285	08/1998	Bentlage et al.				
	5,798,567	08/1998	Kelly et al.		<u> </u>		
	5,805,422	09/1998	Otake et al.		ļ		
	5,818,113	10/1998	lseki et al.				
	5,834,338	11/1998	Takeda et al.				
	5,834,366	11/1998	Akram				
	5,834,848	11/1998	lwasaki				
	5,835,355	11/1998	Dordi	_			
	5,843,808	12/1998	Karnezos				
		FOREIG	N PATENT DOCUMENT	S			
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Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION

DOCUMENT NUMBER

5,844,168 5,866,953

5,886,408

5,891,753

5,898,224

5,973,389

5,973,404

5,977,640

5,982,030

5,984,691

5,990,545

DOCUMENT NUMBER

EXAMINER INITIAL (Use several sheets if necessary)

Docket Number (Optional) 2269-4974.1US (00-0693.01/US)	Application Number Not Yet Assigned
Applicant Teck Kheng Lee	

U.S. PATENT DOCUMENTS FILING DATE IF APPROPRIATE DATE NAME CLASS SUBCLASS 12/1998 Schueller et al. 02/1999 Akram et al. 03/1999 Ohki et al. 04/1999 Akram 04/1999 Akram 10/1999 Culnane et al. 10/1999 Akram et al. 11/1999 Bertin et al. 11/1999 MacIntrye 11/1999 Brodsky et al. 11/1999 Schueller et al. FOREIGN PATENT DOCUMENTS Translation DATE COUNTRY CLASS SUBCLASS YES NO

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INFORMATION DISCLOSURE CITATION IN AN APPLICATION

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(Use several sheets if necessary) Filing Date April 22, 2004 Group Art Unit Unknown **U.S. PATENT DOCUMENTS** DOCUMENT NUMBER **EXAMINER** FILING DATE IF APPROPRIATE DATE NAME CLASS SUBCLASS INITIAL 11/1999 5,991,161 Samaras et al. 6,005,776 12/1999 Holman et al. 6,008,543 12/1999 Iwabuchi 6,011,694 01/2000 Hirakawa 6,013,948 01/2000 Akram et al. 6,020,629 02/2000 Farnworth et al. 6,024,584 02/2000 Lemke et al. 6,027,346 02/2000 Sinsheimer et al. 6,028,365 02/2000 Akram et al. 03/2000 6,034,427 Lan et al. 6,039,889 03/2000 Zhang et al. FOREIGN PATENT DOCUMENTS Translation DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS YES NO **OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.) DATE CONSIDERED **EXAMINER**

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INFORMATION DISCLOSURE CITATION
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		U.S. P	ATENT DOCUMENTS					
EXAMINER INITIAL	DOCUMENT NUMBER _	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIAT		
	6,040,630	03/2000	Panchou et al.					
	6,050,832	04/2000	Lee et al.		ļ			
	6,057,178	05/2000	Galuschki et al.		ļ			
	6,060,782	05/2000	Ohsono et al.					
	6,064,114	05/2000	Higgins, III		· ·			
	6,072,233	06/2000	Corisis et al.		<u> </u>			
	6,074,897	06/2000	Degani et al.					
	6,075,710	06/2000	Lau			ļ		
	6,079,991	06/2000	Lemke et al.					
	6,093,035	07/2000	Lemke et al.					
	6,116,921	09/2000	Scholz et al.					
		FOREIGN	PATENT DOCUMENTS	S	•			
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	* * *	U.S.	PATENT	DOCUMENTS				
EXAMINER INITIAL	DOCUMENT NUMBER	DATÉ		NAME	CLASS	SUBCLASS	FILING DA	
	6,124,631	09/2000	С	ardot et al.				
	6,127,736	10/2000		Akram				
	6,137,062	10/2000	Z	immerman				
	6,137,164	10/2000		Yew et al.				
	6,137,183	10/2000		Sako				
	6,157,541	12/2000		Hacke				
	6,165,885	12/2000	G	aynes et al.				
	6,172,422 B1	01/2001	Cł	nigawa et al.				
	6,179,598 B1	01/2001		Brand				
	6,191,487 B1	02/2001	. Roc	lenbeck et al.				
	6,208,521 B1	03/2001	!	Nakatsuka				·
		FOREIC	N PATEN	IT DOCUMENTS				
	DOCUMENT			COUNTRY	01.400	011001.400	Trans	slation
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Sheet 8 of 9 Docket Number (Optional) **Application Number** Form PTO-1449 2269-4974.1US **Not Yet Assigned** INFORMATION DISCLOSURE CITATION (00-0693.01/US) IN AN APPLICATION Applicant Teck Kheng Lee (Use several sheets if necessary) Filing Date April 22, 2004 Group Art Unit Unknown **U.S. PATENT DOCUMENTS** EXAMINER INITIAL DOCUMENT NUMBER FILING DATE DATE NAME CLASS SUBCLASS IF APPROPRIATE 6,212,768 B1 04/2001 Murakami 04/2001 Takano et al. 6,214,156 B1 6,218,202 B1 04/2001 Yew et al. 04/2001 Estes et al. 6,219,911 B1 6,221,763 B1 04/2001 Gilton et al. 6,225,688 B1 05/2001 Kim et al. 6,229,711 B1 05/2001 Yoneda 6,262,895 B1 07/2001 Forthun 09/2001 Saitoh 6,291,775 B1 6,294,455 B1 09/2001 Ahn 6,300,679 B1 10/2001 Mukerji et al. FOREIGN PATENT DOCUMENTS Translation DOCUMENT DATE COUNTRY CLASS SUBCLASS NUMBER YES NO OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER** DATE CONSIDERED EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through

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Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

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	•	U.S.	PATENT DOCUMENTS						
EXAMINER INITIAL			NAME	CLASS	SUBCLASS	FILING D			
	6,310,288 B1	10/2001	Moden	·					
	6,323,060 B1	11/2001	Isaak						
	6,413,102 B2	07/2002	Jiang et al.		ļ				
6,429,516 B1		08/2002	Tsunoi		ļ				
6,432,737 B1		08/2002	Webster						
2002/0167092 A1		11/2002	Fee et al.		ļ				
	6,489,687 B1	12/2002	Hashimoto				_		
	6,492,737 B1	12/2002	lmasu et al.						
	6,518,677 B1	02/2003	Capote et al.						
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